

Canadian Journal of Physiology and Pharmacology

Contents
Volume 82, 2004

Revue canadienne de physiologie et pharmacologie

Sommaire
Volume 82, 2004

January / Janvier

ARTICLES / ARTICLES

- A.T. Anitha Nandhini, V. Thirunavukkarasu, and C.V. Anuradha** Potential role of kinins in the effects of taurine in high-fructose-fed rats 1
- Ron Ben-Abraham, Itzhak Shapira, Amiki Szold, and Avi A. Weinbroum** Attenuation of liver ischemia-reperfusion-induced atrial dysfunction by external pacing but not by isoproterenol 9
- Gabrielle Gendron, Bryan Simard, Fernand Gobeil, Jr., Pierre Sirois, Pedro D'Orléans-Juste, and Domenico Regoli** Human urotensin-II enhances plasma extravasation in specific vascular districts in Wistar rats 16
- R. Menéndez, R. Más, J. Pérez, R.M. González, and S. Jiménez** Oral administration of D-003, a mixture of very long chain fatty acids prevents casein-induced endogenous hypercholesterolemia in rabbits 22
- M.G. Brunette, M. Leclerc, D. Couchourel, J. Mailloux, and Y. Bourgeois** Characterization of three types of calcium channel in the luminal membrane of the distal nephron 30
- Nathalie Gault, Jean-Luc Poncy et Jean-Louis Lefaix** Apoptose radio-induite : une nouvelle approche par microspectroscopie infrarouge 38
- Ingrid Lajdova, Dusan Chorvat, Jr., Viera Spustova, and Albeta Chorvatova** 4-Aminopyridine activates calcium influx through modulation of the pore-forming purinergic receptor in human peripheral blood mononuclear cells 50
- I fan Kuo, Jie Chen, and Thomas K.H. Chang** Effect of *Ginkgo biloba* extract on rat hepatic microsomal CYP1A activity: role of ginkgolides, bilobalide, and flavonols 57
- Joke Breyne and Bert J. Vanheel** Role of Ba²⁺-resistant K⁺ channels in endothelium-dependent hyperpolarization of rat small mesenteric arteries 65
- Instructions to Authors I-1

February / Février

6th International Symposium of Fundamental and Applied Radiobiology / 6e Colloque international de radiobiologie fondamentale et appliquée

ARTICLES / ARTICLES

- P. Houpert, V. Chazel, and F. Paquet** A local approach to reduce industrial uranium wound contamination in rats 73
- Liliana Radu, Doina Gazdaru, and B. Constantinescu** Spectroscopic study of fast-neutron-irradiated chromatin 79
- I. Dublineau, F. Lebrun, S. Grison, and N.M. Griffiths** Functional and structural alterations of epithelial barrier properties of rat ileum following X-irradiation 84
- Geneviève Drouin, Annie Douillette, Pierre Lacasse et Benoit Paquette** Effet radiosensibilisateur de l'acide linoléique conjugué chez les cellules cancéreuses du sein MCF-7 et MDA-MB-231 94
- I. Dublineau, N. Dudoignon, P. Monti, O. Combes, J. Wysocki, S. Grison, C. Baudelin, N.M. Griffiths, and P. Scanff** Screening of a large panel of gastrointestinal peptide plasma levels is not adapted for the evaluation of digestive damage following irradiation 103
- P. Scanff, M. Souidi, S. Grison, N.M. Griffiths, and P. Gourmelon** Alteration of the enterohepatic recirculation of bile acids in rats after exposure to ionizing radiation 114
- Didier Boucher, Joëlle Hindo, and Dietrich Averbeck** Increased repair of γ -induced DNA double-strand breaks at lower dose-rate in CHO cells 125
- F. Petitot, A.M. Moreels, and F. Paquet** In vitro evaluation of percutaneous diffusion of uranyl nitrate through intact or excoriated skin of rat and pig 133

B. Fischer, S. Benzina, V. Ganansia-Leymarie, J.M. Denis, J.P. Bergerat, P. Dufour, J. Gueulette, and P. Bischoff	
Cisplatin enhances the cytotoxicity of fast neutrons in a murine lymphoma cell line	140
B. Lambert, L. De Ridder, G. Slegers, V. de Gelder, R.A. Dierckx, and H. Thierens	
Screening for supra-additive effects of cytotoxic drugs and gamma irradiation in an in vitro model for hepatocellular carcinoma	146
H. Vitrac, M. Courrègelongue, M. Couturier, F. Collin, P. Thérond, S. Rémita, P. Peretti, D. Jore, and M. Gardès-Albert	
Radiation-induced peroxidation of small unilamellar vesicles of phosphatidylcholine generated by sonication	153
P. Houpert, P. Lestaavel, C. Amourette, B. Dhieux, C. Bussy, and F. Paquet	
Effect of U and ¹³⁷ Cs chronic contamination on dopamine and serotonin metabolism in the central nervous system of the rat	161
Recommendations aux auteurs	R-1

March / Mars

ARTICLES / ARTICLES

Stevan Dostanic, Nicolas Servant, Chunlei Wang, and Lorraine E. Chalfour	
Chronic β -adrenoreceptor stimulation in vivo decreased Bcl-2 and increased Bax expression but did not activate apoptotic pathways in mouse heart	167
Takayuki Matsumoto, Kentaro Wakabayashi, Tsuneo Kobayashi, and Katsuo Kamata	
Alterations in vascular endothelial function in the aorta and mesenteric artery in type II diabetic rats	175
David G. Popovich and David D. Kitts	
Ginsenosides 20(S)-protopanaxadiol and Rh2 reduce cell proliferation and increase sub-G ₁ cells in two cultured intestinal cell lines, Int-407 and Caco-2	183
Eric Plante, Martin Gaudreau, Dominic Lachance, Marie-Claude Drolet, Élise Roussel, Cindy Gauthier, Evelyne Lapointe, Marie Arsenault, and Jacques Couet	
Angiotensin-converting enzyme inhibitor captopril prevents volume overload cardiomyopathy in experimental chronic aortic valve regurgitation	191
R. Tatchum-Talom and D.S. Martin	
Tempol improves vascular function in the mesenteric vascular bed of senescent rats	200
Instructions to Authors	I-1
Recommendations aux auteurs	R-1

April / Avril

ARTICLES / ARTICLES

Loc Bui, Kimberly Rish, Kinga Jaronczyk, Stephane Bourque, Brian E. McLaughlin, James F. Brien, Gerald S. Marks, Ann Smith, and Kanji Nakatsu	
The source of heme for vascular heme oxygenase I: heme uptake in rat aorta	209
Kinga Jaronczyk, Loc Bui, Jonathan M. Soong, Brian E. McLaughlin, Gerald S. Marks, James F. Brien, and Kanji Nakatsu	
The source of heme for vascular heme oxygenase II: de novo heme biosynthesis in rat aorta	218
Hiroyuki Nakamura, Ichiyo Matsuzaki, Kotaro Hatta, and Keiki Ogino	
Physiological involvement of placental endothelin-1 and prostaglandin F _{2α} in uteroplacental circulatory disturbance in pregnant rats exposed to heat stress	225
Suzanne B. DeBow, John E. McKenna, Bryan Kolb, and Frederick Colbourne	
Immediate constraint-induced movement therapy causes local hyperthermia that exacerbates cerebral cortical injury in rats	231
Aiko Kido, Naofumi Tanaka, and Richard B. Stein	
Spinal excitation and inhibition decrease as humans age	238
S.A. Reading, C.L. Murrant, and J.K. Barclay	
Positive inotropism in mammalian skeletal muscle in vitro during and after fatigue	249
Takako Aoki and Toshiharu Oba	
Gold sodium thiomalate improves membrane potential impaired by high-frequency stimulation	262
Pascal Laurant, Mark Adrian, and Alain Berthelot	
Effect of age on mechanical properties of rat mesenteric small arteries	269
Farong Yu, Fahong Yu, Rende Li, and Rui Wang	
Toxic effect of chloromycetin on the ultrastructures of the motor neurons of the Chinese tree shrew (<i>Tupaia belangeri</i>)	276
BRIEF REPORT / RAPPORT BREF	
Marika L. Mihok and Coral L. Murrant	
Rapid biphasic arteriolar dilations induced by skeletal muscle contraction are dependent on stimulation characteristics	282

May / Mai

REVIEWS / SYNTHÈSES

- Andreas Bergdahl and Karl Swärd** Caveolae-associated signalling in smooth muscle 289
- Judy E. Anderson and Ashley C. Wozniak** Satellite cell activation on fibers: modeling events in vivo — an invited review 300

ARTICLES / ARTICLES

- F. Picquet, L. De-Doncker, and M. Falempin** Enhancement of hybrid-fiber types in rat soleus muscle after clenbuterol administration during hindlimb unloading 311
- Walber Toma, José Roberto Trigo, Ana Cláudia Bensuaski de Paula, and Alba Regina Monteiro Souza Brito** Modulation of gastrin and epidermal growth factor by pyrrolizidine alkaloids obtained from *Senecio brasiliensis* in acute and chronic induced gastric ulcers 319
- Nasser Vahdati-Mashhadian, Mohammad K. Hassanzadeh, Javad Hosseini, and Ali A. Saffareshargh** Ethnic differences in the frequency of distribution of serum cholinesterase activity in the Iranian population 326
- H.F. Miranda, E. Silva, and G. Pinardi** Synergy between the antinociceptive effects of morphine and NSAIDs 331
- Wei-Jie Peng, Jing Yu, Sheng Deng, Jun-Ling Jiang, Han-Wu Deng, and Yuan-Jian Li** Effect of estrogen replacement treatment on ischemic preconditioning in isolated rat hearts 339
- Yadhu N. Singh, Evelyn H. Schlenker, Brahma N. Singh, and James A. Burbach** Consequences of thyroxine treatment on diaphragm and EDL of normal and dystrophic hamsters 345

BRIEF REPORTS / RAPPORTS BREFS

- Beata Kosmider, Elzbieta Zyner, Regina Osiecka, and Justyn Ochocki** Genotoxicity of *cis*-Pt(II) complex of 3-aminoflavone in comparison with *cis*-DDP in A549 cells evaluated by comet assay 353
- Jani Penttälä, Antti Helminen, Markku Anttila, Susanna Hinkka, and Harry Scheinin** Cardiovascular and parasympathetic effects of dexmedetomidine in healthy subjects 359

June / Juin

ARTICLES / ARTICLES

- R.M. Narayansingh, M. Senchyna, M.M. Vijayan, and J.C. Carlson** Expression of prostaglandin G/H synthase (PGHS) and heat shock protein-70 (HSP-70) in the corpus luteum (CL) of prostaglandin F_{2α}-treated immature superovulated rats 363
- Valdeci da Cunha, Ivanita Stefanon, José Geraldo Mill** Role of nitric oxide in mediating cardiovascular alterations accompanying heart failure in rats 372
- Ki-Ho Cho, Woo-Sang Jung, Sung-Uk Park, Sang-Kwan Moon, Chang-Nam Ko, Seojin Ku, Sung-Gil Chi, and Heonyong Park** Daio-Orengedokudo works as a cell-proliferating compound in endothelial cells 380
- Eliete J.B. Bighetti, Alba R.M. Souza-Brito, Eliana C. de Faria, and Helena C.F. Oliveira** Chronic treatment with bark infusion from *Croton cajucara* lowers plasma triglyceride levels in genetic hyperlipidemic mice 387
- Fredrik Johansson, Rolf G.G. Andersson, Eva Lindström, and Samuel S. Svensson** An indomethacin-sensitive contraction induced by β -antagonists in guinea pig airways 393
- Yong-Sheng Ke, He-Gui Wang, De-Guo Wang, and Gen-Bao Zhang** Endoxin-mediated myocardial ischemia reperfusion injury in rats in vitro 402
- Hernando Leon, Laura L. Atkinson, Jolanta Sawicka, Ken Strynadka, Gary D. Lopaschuk, and Richard Schulz** Pyruvate prevents cardiac dysfunction and AMP-activated protein kinase activation by hydrogen peroxide in isolated rat hearts 409

BRIEF REPORTS / RAPPORTS BREFS

- Gabriel Orce, Graciela Castillo, Yolanda Chanampa, and Alejandra Bellomio** Permeability to water in a tight epithelium: possible modulating action of gap junctions 417
- Marisa Zallocchi, Laura Matković, and María C. Damasco** Adrenal 11-beta hydroxysteroid dehydrogenase activity in response to stress 422
- William T. Gibson, Barbara J. Ebersole, Sumit Bhattacharyya, Peter Clayton, I. Sadaf Farooqi, Stuart C. Sealfon, and Stephen O'Rahilly** Mutational analysis of the serotonin receptor 5HT_{2c} in severe early-onset human obesity 426

July / Juillet

ARTICLES / ARTICLES

- William W.-G. Jia, Xuexian Bu, Don Philips, Hang Yan, Guoyu Liu, Xiaoguang Chen, Jason A. Bush, and Gang Li** Rh2, a compound extracted from ginseng, hypersensitizes multidrug-resistant tumor cells to chemotherapy 431
- Kanu R. Shah, Pallab K. Ganguly, Thomas Netticadan, Amarjit S. Arneja, and Naranjan S. Dhalla** Changes in skeletal muscle SR Ca^{2+} pump in congestive heart failure due to myocardial infarction are prevented by angiotensin II blockade 438
- Zia A. Khan, Yousef P. Barbin, Mark Cukiernik, Paul C. Adams, and Subrata Chakrabarti** Heme-oxygenase-mediated iron accumulation in the liver 448
- C. Ann Brown, Larry A. Wolfe, Sylvia Hains, Glorianne Ropchan, and Joel Parlow** Heart rate variability following coronary artery bypass graft surgery as a function of recovery time, posture, and exercise 457
- S. Marra and L. Hoffman-Goetz** β -adrenergic receptor blockade during exercise decreases intestinal lymphocyte apoptosis but not cell loss in mice 465
- Antonio Balan, Jr., Cristofer André Caous, Yun-Guo Yu, and Charles Julian Lindsey** Barosensitive neurons in the rat tractus solitarius and paratrigeminal nucleus: a new model for medullary, cardiovascular reflex regulation 474
- Cristofer André Caous, Antonio Balan, and Charles Julian Lindsey** Bradykinin microinjection in the paratrigeminal nucleus triggers neuronal discharge in the rat rostroventrolateral reticular nucleus 485
- Rodrigo Azuero, Chittaranjan Debata, Marie Quinn, Kathleen McDonough, Jessica Thomson, and Duna Penn** Dobutamine alters carnitine metabolism in the neonatal piglet heart 493
- Nazim Dogan, Ali Fuat Erdem, Cemal Gundogdu, Husnu Kursad, Mehmet Kizilkaya** The effects of ketorolac and morphine on articular cartilage and synovium in the rabbit knee joint 502
- Enoka P. Wijekoon, Craig Skinner, Margaret E. Brosnan, and John T. Brosnan** Amino acid metabolism in the Zucker diabetic fatty rat: effects of insulin resistance and of type 2 diabetes 506
- Carola Severi, Ivan Tattoli, Giovanna Romano, Vito D. Corleto, and Gianfranco Delle Fave** β_3 -Adrenoceptors: relaxant function and mRNA detection in smooth muscle cells isolated from the human colon 515

BRIEF REPORT / RAPPORT BREF

- M. Muller, J. Gauley, and John J. Heikkila** Hydrogen peroxide induces heat shock protein and *proto-oncogene* mRNA accumulation in *Xenopus laevis* A6 kidney epithelial cells 523

August-September / Août Septembre**Nerve, Muscle, and Beyond: the R.B. Stein Symposium / « Nerve, muscle and beyond » : un symposium en l'honneur de R.B. Stein**

TRIBUTE / HOMMAGE

- D.G. Stuart** The research career of Richard B. Stein (1940–) 531

REVIEWS / SYNTHÈSES

- Andrew S. French and Päivi H. Torkkeli** Mechanotransduction in spider slit sensilla 541
- C.J. Heckman, Jason J. Kuo and Michael D. Johnson** Synaptic integration in motoneurons with hyper-excitable dendrites 549
- E. Paul Zehr, Timothy J. Carroll, Romeo Chua, David F. Collins, Alain Frigon, Carlos Haridas, Sandra R. Hundza, and Aiko Kido Thompson** Possible contributions of CPG activity to the control of rhythmic human arm movement 556
- T. Richard Nichols and Timothy C. Cope** Cross-bridge mechanisms underlying the history-dependent properties of muscle spindles and stretch reflexes 569

ARTICLE / ARTICLE

- Y. Laouris, L. Bevan, R.M. Reinking, and D.G. Stuart** Associations between force and fatigue in fast-twitch motor units of a cat hindlimb muscle 577

REVIEW / SYNTHÈSE

- J. Maxwell Donelan and Keir G. Pearson** Contribution of sensory feedback to ongoing ankle extensor activity during the stance phase of walking 589

ARTICLES / ARTICLES

- Daniel McDonnall, Gregory A. Clark, and Richard A. Normann** Selective motor unit recruitment via intrafascicular multielectrode stimulation 599
- Michael J. Grey, Nazarena Mazzaro, Jens Bo Nielsen, and Thomas Sinkjær** Ankle extensor proprioceptors contribute to the enhancement of the soleus EMG during the stance phase of human walking 610

REVIEW / SYNTHÈSE

- S. Rossignol, E. Brustein, L. Bouyer, D. Barthélemy, C. Langlet, and H. Leblond** Adaptive changes of locomotion after central and peripheral lesions 617

ARTICLES / ARTICLES

- Ksenija Jovanovic and Robert E. Burke** Anatomical organization of motoneurons and interneurons in the mudpuppy (*Necturus maculosus*) brachial spinal cord: the neural substrate for central pattern generation 628
- Igor Lavrov and Jianguo Cheng** Activation of NMDA receptors is required for the initiation and maintenance of walking-like activity in the mudpuppy (*Necturus Maculatus*) 637

REVIEW / SYNTHÈSE

- Tessa Gordon, Christine K. Thomas, John B. Munson, and Richard B. Stein** The resilience of the size principle in the organization of motor unit properties in normal and reinnervated adult skeletal muscles 645
- Jaynie F. Yang, Tania Lam, Marco Y.C. Pang, Erin Lamont, Kristin Musselman, and Elizabeth Seinen** Infant stepping: a window to the behaviour of the human pattern generator for walking 662
- Paul M. Kennedy, Andrew G. Cresswell, Romeo Chua, and J. Timothy Inglis** Vestibulospinal influences on lower limb motoneurons 675

ARTICLES / ARTICLES

- Aftab E. Patla, Sebastian S. Tomescu, and Milad G.A. Ishac** What visual information is used for navigation around obstacles in a cluttered environment? 682
- Sophie J. De Serres and Nathan Z. Fang** The accuracy of perception of a pinch grip force in older adults 693
- V.K. Mushahwar, Y. Aoyagi, R.B. Stein, and A. Prochazka** Movements generated by intraspinal microstimulation in the intermediate gray matter of the anesthetized, decerebrate, and spinal cat 702
- J. Duysens, C.M. Bastiaanse, B.C.M. Smits-Engelsman, and V. Dietz** Gait acts as a gate for reflexes from the foot 715

REVIEW / SYNTHÈSE

- John D. Brooke** Somatosensory paths proceeding to spinal cord and brain — centripetal and centrifugal control for human movement 723

ARTICLES / ARTICLES

- J. Wayne Aldridge, Kent C. Berridge, and Alyssa R. Rosen** Basal ganglia neural mechanisms of natural movement sequences 732
- Parveen Bawa and Blair Calancie** Rate-coding of spinal motoneurons with high-frequency magnetic stimulation of human motor cortex 740
- Dejan B. Popovic, Mirjana B. Popovic, Thomas Sinkjær, Aleksandra Stefanovic, Laszlo Schwirtlich** Therapy of paretic arm in hemiplegic subjects augmented with a neural prosthesis: A cross-over study 749
- R.B. Stein, Y. Aoyagi, D.J. Weber, S. Shoham, and R.A. Normann** Encoding mechanisms for sensory neurons studied with a multielectrode array in the cat dorsal root ganglion 757
- Alejandro Del Valle and Christine K. Thomas** Motor unit firing rates during isometric voluntary contractions performed at different muscle lengths 769
- G. Vrbová and M.B. Lowrie** The effect of activity during early postnatal development on motor unit size 777
- D.J. Weber, R.B. Stein, K.M. Chan, G.E. Loeb, F.J.R. Richmond, R. Rolf, K. James, S.L. Chong, Aiko Kido Thompson, and J. Misiaszek** Functional electrical stimulation using microstimulators to correct foot drop: a case study 784

REVIEW / SYNTHÈSE

- A. Taylor, R. Durbaba, and P.H. Ellaway** Direct and indirect assessment of γ -motor firing patterns 793

Regular paper / Article ordinaire

RAPID COMMUNICATION / COMMUNICATION RAPIDE

- Ghassan Bkaily, Moni Nader, Levon Avedanian, Danielle Jacques, Claudine Perrault, Dima Abdel-Samad, Pedro D'Orléans-Juste, Fernand Gobeil, and Khaled M. Hazzouri** Immunofluorescence revealed the presence of NHE-1 in the nuclear membranes of rat cardiomyocytes and isolated nuclei of human, rabbit, and rat aortic and liver tissues 805

October / Octobre

John H. McNeill Symposium / Le Symposium John H. McNeill

REVIEWS / SYNTHÈSES

- David L. Severson** Diabetic cardiomyopathy: recent evidence from mouse models of type 1 and type 2 diabetes 813
- John Turk and Sasanka Ramanadham** The expression and function of a group VIA calcium-independent phospholipase A_2 (iPLA $_2\beta$) in β -cells 824
- Lise Coderre and Ashok K. Srivastava** Vanadium and the cardiovascular functions 833
- Farzad Moien-Afshari, Peter L. Skarsgard, Bruce M. McManus, and Ismail Laher** Cardiac transplantation and resistance artery myogenic tone 840
- Rajendra K. Sharma** Potential role of *N*-myristoyltransferase in pathogenic conditions 849
- Amit K. Mitra, Ashwini S. Dhume, and Devendra K. Agrawal** "Vulnerable plaques" — ticking of the time bomb 860

ARTICLES / ARTICLES

- Makoto Yono, Harris E. Foster, Jr., David Shin, Wataru Takahashi, Mehdi Pouresmail, and Jamshid Latifpour** Doxazosin-induced up-regulation of α_{1A} -adrenoceptor mRNA in the rat lower urinary tract 872
- Sanjoy Ghosh, Simon Ting, Howard Lau, Thomas Pulinkunnil, Ding An, Dake Qi, Mohammed A. Abrahani, and Brian Rodrigues** Increased efflux of glutathione conjugate in acutely diabetic cardiomyocytes 879
- Tod A. Clark, Andrea L. Edel, Clayton E. Heyliger, and Grant N. Pierce** Effective control of glycemic status and toxicity in Zucker diabetic fatty rats with an orally administered vanadate compound 888
- Irem Mueed, Perminder Bains, Lili Zhang, and Kathleen M. MacLeod** Differential participation of protein kinase C and Rho kinase in α_1 -adrenoceptor mediated contraction in rat arteries 895
- J. Rex Lee, Xin-Jian Zhang, Bor-Kang Lin, Charles E. Reigel, and Thomas E. Tenner, Jr.** Altered inotropic reactivity in diabetic rabbit right ventricular myocardium 903
- Najim Al-Awwadi, Florence Bichon-Laurent, Théophile Dimo, Alain Michel, Karine Portet, Gérard Cros, and Patrick Pouchet** Differential effects of sodium tungstate and vanadyl sulfate on vascular responsiveness to vasoactive agents and insulin sensitivity in fructose-fed rats 911
- Zhengyuan Xia, David V. Godin, and David M. Ansley** Application of high-dose propofol during ischemia improves postischemic function of rat hearts: effects on tissue antioxidant capacity 919
- Thomas Daniels, Maureen Gallagher, George Tremblay, and Robert L. Rodgers** Effects of valproic acid on cardiac metabolism 927

November / Novembre

ARTICLES / ARTICLES

- Ihsan Bagcivan, Tijen Kaya, Mustafa Turan, Selçuk Goktas, Yeltekin Demirel, and Sinan Gursoy** Investigation of the mechanism of nicotine-induced relaxation on the sheep sphincter of Oddi 935
- Fátima Martel, Rosário Monteiro, Clara Lemos, and M.A. Vieira-Coelho** In vitro and in vivo effect of fluoxetine on the permeability of 3H -serotonin across rat intestine 940
- R.L. Walker, A.G. Buret, C.L. Jackson, K.G.-E. Scott, R. Bajwa, and H.R. Habibi** Effects of growth hormone on leucine absorption, intestinal morphology, and ultrastructure of the goldfish intestine 951
- Chikako Saiki and Shigeji Matsumoto** Digastic muscle activities in anoxic infant rats 960
- Luciane A. Faine, Yeda S. Diniz, Cristiano M. Galhardi, Hosana G. Rodrigues, Regina C. Burneiko, Lea S. Santana, Antonio C. Cicogna, and Ethel L.B. Novelli** Synergistic action of olive oil supplementation and dietary restriction on serum lipids and cardiac antioxidant defences 969

Quy N. Diep, Farhad Amiri, Karim Benkirane, Pierre Paradis, and Ernesto L. Schiffrin	Long-term effects of the PPAR γ activator pioglitazone on cardiac inflammation in stroke-prone spontaneously hypertensive rats	976
Jun Su, Peter M. Scholz, James Tse, and Harvey R. Weiss	Effects of cyclic GMP and its protein kinase on the contraction of ventricular myocytes from hearts after cardiopulmonary arrest	986
Pei-Han Xu, Ming Chang, Li-Xiang Cheng, Qiang Cheng, Xiang Yan, and Rui Wang	The relaxant effect of nociceptin on porcine coronary arterial ring segments	993
Carlos F. Santos, Andrew S. Greene, Maria Cristina O. Salgado, and Eduardo B. Oliveira	Conversion of renin substrate tetradecapeptide to angiotensin II by rat MAB elastase-2	1000
Anne Marie F. Salapatek, Junzhi Ji, Ahmad Muinuddin, and Nicholas E. Diamant	Potassium channel diversity within the muscular components of the feline lower esophageal sphincter	1006
Xin Lin, Qiang Chen, Li-Ying Xue, Xiao-Jun Ma, and Rui Wang	Endomorphins, endogenous opioid peptides, induce apoptosis in human leukemia HL-60 cells	1018
Mojca Lorbar, Eugene S. Chung, Arash Nabi, Katarina Skalova, Richard A. Fenton, James G. Dobson, Jr., and Theo E. Meyer	Receptors subtypes involved in adenosine-mediated modulation of norepinephrine release from cardiac nerve terminals	1026

December / Décembre

REVIEW / SYNTHÈSE

Satoshi Takeo and Kouichi Tanonaka	Na ⁺ overload-induced mitochondrial damage in the ischemic heart	1033
---	---	------

CRITICAL REVIEW / SYNTHÈSE CRITIQUE

Karen A. Detillieux, Peter A. Cattini, and Elissavet Kardami	Beyond angiogenesis: the cardioprotective potential of fibroblast growth factor-2	1044
---	---	------

REVIEW / SYNTHÈSE

Arwen L. Hunter, Rani P. Cruz, Bo M. Cheyne, Bruce M. McManus, and David J. Granville	Cytochrome p450 enzymes and cardiovascular disease	1053
--	--	------

ARTICLES / ARTICLES

D. Dekanski, V. Piperski, J. Tasić, I.D. Marković, M. Jokanović, P. Stukalov, and D.M. Mitrović	Transport of endogenous nucleosides in guinea pig heart	1061
Maria A.G. Reid and W. Wayne Lauth	Pattern of insulin delivery affects hepatic insulin sensitizing substance (HISS) action and insulin resistance	1068
Marc Riachi, Jean Himms-Hagen, and Mary-ellen Harper	Percent relative cumulative frequency analysis in indirect calorimetry: application to studies of transgenic mice	1075
S. Kothan, S. Dechsupa, G. Leger, J.L. Moretti, J. Vergote, and S. Mankhetkorn	Spontaneous mitochondrial membrane potential change during apoptotic induction by quercetin in K562 and K562/adr cells	1084
Guilherme L. Lima-Filho, Glaydes M.T. Lima, Silvana R.F. Moreno, Luiz C.M. Aleixo, Sebastião D. Santos-Filho, Rosimeire S. Freitas, Vilma G.B. Melo, and Mario Bernardo-Filho	Physiological (osmotic fragility) and morphological effects on red blood cells: action of phytic acid and stannous fluoride	1091
Akira Kimura, Kenji Okumura, Shinji Mokuno, Yasushi Numaguchi, Hideo Matsui, and Toyoaki Murohara	Higher viscosity participates in the regulation of coronary flow via nitric oxide and indomethacin-sensitive contracting factor	1096
John J. McGuire, Morley D. Hollenberg, Brian M. Bennett, and Chris R. Triggle	Hyperpolarization of murine small caliber mesenteric arteries by activation of endothelial proteinase-activated receptor 2	1103
James E. Fewell and Bonnie J. Taylor	Level of ventilation influences the cardiovascular response to hypoxemia in lambs	1113
Bin Ren, Qiming Shao, Pallab K. Ganguly, Paramjit S. Tappia, Nobuakira Takeda, and Naranjan S. Dhalla	Influence of long-term treatment of imidapril on mortality, cardiac function, and gene expression in congestive heart failure due to myocardial infarction	1118
Edward D. McAlister and Dean A. Van Vugt	Effect of leptin administration versus re-feeding on hypothalamic neuropeptide gene expression in fasted male rats	1128
Author Index for Volume 82 / Index des auteurs pour le volume 82		AI-1
Contents for Volume 82 / Sommaire pour le volume 82		C-1